SEQUENCE LISTING

<110> Fang-Tseh (Frank) CHANG et al.

<120> METHODS AND COMPOSITIONS FOR PEARL
      OYSTER CULTIVATION

<130> 505493000120

<140> To Be Assigned
<141> Herewith

<150> 60/310,070
<151> 2001-08-02

<160> 6

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 2050
<212> DNA
<213> Pinctada margaritifera

<400> 1
```
ggcatttcaa aacttacaag agagagatac agtaaatgtg gagaatgacg acacttcttc      60
acttgactcc tctgcttgtt ctgattccat tatgtcattg tgcctccatg cacaggcatg     120
accattatat ggacatggat aaaacctacc gtaatcgatg gggaaactgt cattattcag     180
ggggaagtag ctgtgacgcc gggtttagct acaataggga acaaaatgag gaacaatgcc     240
acggtccgta tgactggcac actatatcta gttgctttaa ggcatgtgga agtaaagaga     300
gacaatcacc aatcaacatt tggtcacata gagccctttt ccgaaaactg ccaagactga     360
aattcaagcc acatatgaaa tcattggata cgaaagtgtc aaatcaccaa aatcatgccc     420
ctgaattcga ttcagaggac gaaaaacttc atgttaaact gaagaatctt gttgatggac     480
attataaatt ccgcaatctc catattcaca ttggcaaaag tagacgaaag ggctccgaac     540
acagcgttga cagacatttt acacctatgg aggctcattt agtgttccgt catgatgaga     600
aaaaggaaat caaacctcct aggatttggt taggaagaaa tttcagtgga attaatgaat     660
ttgttgtcgt tggggttttt ctagaggttg gtgatgaagg atacggtgat gaaccggacg     720
acgatgaatg taagcgcata ttaaagggtc attacgatca ttgcgacaac aatggagaca     780
acggctacaa ctgtgataac ggcaacaatg gaaacaacgg aaacaatggt aatggtaaca     840
acggttataa cggtaacaac ggttataacg gtaataacgg tgacaatggc aacagtggaa     900
acaatggtaa tggtaacaac ggttataacg gtaacaacgg ttataacggt aataacggtg     960
acaatggcaa cagcggaaac aatggtaatg gtaacaacgg ttataacggt aataacggtg    1020
gcaacggaaa caacagaaac aatggcaatg gtaacaacgg ttataacggt aataacggtg    1080
acaatggcaa caacggaaac aatggtaatg gtaacaacgg aaacaatggt aatgataaca    1140
acggaaataa tggtaatggt aacaacggaa ataacggtgg caatggcaac aatggaaaca    1200
atggtaatgg taacaacgga aataatggta atggtaacaa cggaaataat ggtaatggta    1260
acaacggaaa taacggtggc aatggcaaca atggtaatgg taacaatgga aataatggta    1320
acggtgacta cggtagtaat ggtaacaatg gtggaaacgg gaacaatggt aataacggtg    1380
ataacggtaa tggcgacaat ggttataacg gtgataatgg taacagtgac gggcgactca    1440
gacgttggga cttggaaaat gtccgacgca tgcataccga gcgatatcac ttcagcagaa    1500
gatgtattgt caaaaaagca aaacgcctca gcaggattct cgaatgcgca tatagacaca    1560
aaaaagtcag agaattcaaa aggaatggag aacacaaagg tcttgatgtt gaaattacac    1620
cggaaatggt tttaccgcca ataaagtaca gacaatacta tacctatgaa ggatcattga    1680
caacccctcc ttgcgatgag accgtccttt gggttgtaga aaaatgccac gtgcaagtat    1740
ccagaagggt gcttgatgca ttgcggaacg ttgaaggata tgaggatggt accacgctga    1800
gcaagtatgg aactagacgt cccacacaga gaaacataaa acctttaact gtgtacaaaa    1860
```

1

```
acttcatatg atcgaactca ttttctgttc cagtctcgtt aaggaacaaa tgtaaataat    1920
gtcacgattc gcacaatgta caatatatct gtttctgcac atcatatgaa gcatactcta    1980
atgtaaaact gttaaaaatg atgcaataaa tatgtttttt taaaaaaaaa aaaaaaaaaa    2040
aaaaaaaaaa                                                           2050
```

<210> 2
<211> 1811
<212> DNA
<213> Pinctada maxima

<400> 2
```
aatgtggaga atgacgacgc ttcttcactt gactgctctg cttgttctga ttccattatg      60
tcattgcgcc tccatgcaca ggcatgacca ttatatggac atggatcaaa cctaccctaa     120
tggattggga tactgtgaac cttcaggtga aagcagctgt aaagccggat ttagctacaa     180
tagagacata tgccaaggtc cgtatcattg gcacactata tctagttgct ataaggcatg     240
tggacataaa aggagacaat caccaatcaa catttggtca cataaagctg tattcttacc     300
ttatctgcca agactgaaat tcaagccaca tatgaagtca ttggatacgg acgtgacaaa     360
tcaccaaaat cgtgcccctg aattcgagcc ggaggacgga dataagcttc atgtgaaact     420
aaagaatctt gttgatggac attataaatt tcacaatctc catattcaca acggcaaaag     480
tagacgaaag ggctcggaac acagcgtgaa cagacatttt acgcccatgg aggctcattt     540
ggtgttccat catgatgata aaaaggaaat caaacctcca agggttaagt taggggagt      600
gtacgctggt cgtaacaaat ttgttgtcgt tggagtcttt ctagaggtgg gtgatgaagg     660
atacggtgat gaaccggacg acgatgaatg taagcgcata ttaaagggtc attgcgagaa     720
caatggggac aatggtaaca actgtgataa cggcaacaat ggtaacaacg acaacaatgg     780
taacaacgga aacaatggta atggtaacaa cggttataac ggtaataacg gtgacaatgg     840
aaacaatggc aatggtaatg gtaacaacgg ttataacggt aataacggtt acaatggcaa     900
caacggaaac aatggtaatg gtaacaatga caataatggt aacgataaca acggaaataa     960
cggtggcaat ggtaacaacg gaaacaatgg taatggtaac aatggaaata atggtaatgg    1020
taataacgga ataacggtg gcaatggcaa caacggaaac aatggtaata gtaacaacgg    1080
aaataatggt aatggtaaca acggaaataa cggtggcaat ggcaacaacg gaaacaatgg    1140
taatggtaac aatgaaaata atggtaacgg tagtaatggt aacaatggtg gaaacggcaa    1200
caatggtaat aacggtgata acggtaatgg cgacaatggt tataacggtg ataatggtaa    1260
cagtgacggg cgactcagac gctgggattt ggcaaatgtc cgacgcatgc acgccgagcg    1320
atatcacttt agcggaggat gtatcgtcaa aaaagctaaa cgcctcagca ggattcttga    1380
atgcgcatat agacacaaaa aagtcagaga attcaaaagg aatggagaag aaaaaggtct    1440
tgatgttgat attacaccgg aaaatggttt accgccaatg aaatacagac attactatac    1500
ttatgaagga tctttgacaa cccctccttg caatgagacc gtcctttggg ttgttgaaaa    1560
atgccacgtg caagtatcca gaagggtgct tgatgcattg cggaacgtcg aaggatatga    1620
agatggtacc acgctgagca agtatggaac cagacgtccc acacaagaa acaagcatcc    1680
tctacgtgtg tacaaaaact ccatataatg atcatggcga gagaatgacg acgcttcttc    1740
acttgactgc tctgcctcct ccccccaccc ccccccggcc atatggccac tctgcgttga    1800
taccactgct t                                                        1811
```

<210> 3
<211> 2363
<212> DNA
<213> Pinctada fucata

<400> 3
```
tagtaaatgt gaagattggt gatgtatctt catttgactg ccctatgtgt tgttattccg      60
ctgtgttatg gcgcctccat gtttaaacat gaccactaca tggacaatgg tgtgaggtat     120
cctaatggtg acggaatctg taaacaattg aatgaaacca aatgtgatgc agggtttagc     180
tatgatagga gtatatgtga aggtcctcat tattggcaca ccatatcgaa atgcttcatt     240
gcatgtggaa ttggacagag acaatctcca atcaacatcg tttcttatga tgctaaattt     300
cgtcagcgtt tgccaaaatt gaaattcaag ccacatatgg agaaattaaa aacagaagtg     360
accaatcatc agaaccgagc tccagagttc gagccagagg atggggaaaa tctgtacgtg     420
aagctaaata acctagtgga cggtcattat aaattccata atcttcacgt tcataatggt     480
```

```
agaaccagac gtaagggatc agaacacagt gttaacggtc gtttcacacc tatggaggct        540
catttggttt tccatcatga tgatcaaaca cactttgaac ctacacgcac taagctggga        600
ggagcattcc ctggtcataa cgattttgtc gtcgttggag ttttttcttga ggtcggagat       660
gacggctttg gcgacgaacc ggatgacgaa gaatgtaaac acatcttaaa gggacatcac        720
cctgataata acgagaacgg caatggagac aatggcaata acggctacaa tggggacaac        780
ggtaacaatg gtgacaacgg caataacagc tacaatgggg acaacggtaa caatggtgtc        840
aacggcaata acggctacaa tggggacaac ggtaacaatg gagacaacgg caataacggc        900
tacaatgggg acaacggtaa caatggtgac aacggcaata acggtgaaaa cggcaataac        960
ggtgaaaacg gcaataacgg tgaaaatggt cacaaacacg gatgtcgggt aaagaaagca       1020
aagcatctca gtaggatcct ggaatgtgct tatagaaacg ataaggtcag agagttcaag       1080
aaagttggag aagaggaagg gttagatgtt catctaacac cggagatggc tttgccgcca       1140
ctgaagtaca gacattacta tacatacgag ggatccctga ccactccccc gtgtacagag       1200
tctgtcctct gggttgttca aaaatgccat gtgcaggtgt caagaagggt tcttcatgca       1260
ttacgaaatg ttgaaggata taaagatggt accacactaa gaaagtatgg aactagacgt       1320
ccaacgcaaa agaataaagt tactgtgtac aaaagcttca aatagttgac atagtttttg       1380
ttcttttcct tatagagaca tgtaacacag ccaattatgt ttcatatgta atccatgtaa       1440
aatacaggat ctttacataa atattcatgt gaaacaagca cgaacattaa aggactaggt       1500
gcgctaaccc cttatatcgg ccctataatt tcgacgagaa atgcttttaa taaacaaact       1560
attaattata gcttttttgca atgttgaatg tttgagaaaa taccgcatca tattttttag       1620
ccctcgtaac gtcacgcgag tgatgtatga tgtcatgttc tgaaagtcat ttgccctgaa       1680
tgacgcaaaa caaatgagaa tcatcgtatt ttacatacaa atcttcaaat tcatctgcga       1740
ttcaggcctc gaacacgata tttttatgc aaatttaaag gccgatcaaa aatccatcga       1800
ttagtacaaa tattatcgtg ggcaattaag gcctggaacg atacttaatt tcataaattt       1860
taatcgaaat ttcgctgatt tattgatatt ttcaatgagt ttcaacgttt tagacatttt       1920
tttgtaatat tcagtatagg actatgaaat caaaaaaagc tttcctgata tggattcacc       1980
atacatttaa catttcaaaa actagaatat tatggatata tgaacaactt tgaaaatggg       2040
gccgatatgg caggttaccg aacctacttc tttttatcaa attttttaca tgaaattcat       2100
gggaagtttc cgacatcaat ttcatgtgaa ttctatatcg catgaaggtc acaaagaaaa       2160
tttcatgtaa aattcatgcg aaggaaattc atgtgaaact catgtgaaat attttttcaca       2220
taaatcttaa gtgaaaagta tataaatttc acaactttca tgtgaaattt aagtgatgct       2280
cattttgtat ggatttcatg tgaggcataa ttgactgctt gtactatgta attagaacaa       2340
aatgtcaaat atttaataaa tga                                                 2363
```

<210> 4
<211> 611
<212> PRT
<213> Pinctada margaritifera

<400> 4
```
Met Trp Arg Met Thr Thr Leu Leu His Leu Thr Pro Leu Leu Val Leu
1               5                   10                  15
Ile Pro Leu Cys His Cys Ala Ser Met His Arg His Asp His Tyr Met
            20                  25                  30
Asp Met Asp Lys Thr Tyr Arg Asn Arg Trp Gly Asn Cys His Tyr Ser
            35                  40                  45
Gly Gly Ser Ser Cys Asp Ala Gly Phe Ser Tyr Asn Arg Glu Gln Asn
    50                  55                  60
Glu Glu Gln Cys His Gly Pro Tyr Asp Trp His Thr Ile Ser Ser Cys
65                  70                  75                  80
Phe Lys Ala Cys Gly Ser Lys Glu Arg Gln Ser Pro Ile Asn Ile Trp
            85                  90                  95
Ser His Arg Ala Leu Phe Arg Lys Leu Pro Arg Leu Lys Phe Lys Pro
            100                 105                 110
His Met Lys Ser Leu Asp Thr Lys Val Ser Asn His Gln Asn His Ala
            115                 120                 125
Pro Glu Phe Asp Ser Glu Asp Glu Lys Leu His Val Lys Leu Lys Asn
    130                 135                 140
```

3

Leu Val Asp Gly His Tyr Lys Phe Arg Asn Leu His Ile His Ile Gly
145   150   155   160
Lys Ser Arg Arg Lys Gly Ser Glu His Ser Val Asp Arg His Phe Thr
                165   170   175
Pro Met Glu Ala His Leu Val Phe Arg His Asp Glu Lys Lys Glu Ile
                180   185   190
Lys Pro Pro Arg Ile Trp Leu Gly Arg Asn Phe Ser Gly Ile Asn Glu
                195   200   205
Phe Val Val Val Gly Val Phe Leu Glu Val Gly Asp Glu Gly Tyr Gly
    210   215   220
Asp Glu Pro Asp Asp Asp Glu Cys Lys Arg Ile Leu Lys Gly His Tyr
225   230   235   240
Asp His Cys Asp Asn Asn Gly Asp Asn Gly Tyr Asn Cys Asp Asn Gly
                245   250   255
Asn Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Tyr Asn
                260   265   270
Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Asp Asn Gly Asn Ser Gly
                275   280   285
Asn Asn Gly Asn Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Tyr Asn
    290   295   300
Gly Asn Asn Gly Asp Asn Gly Asn Ser Gly Asn Asn Gly Asn Gly Asn
305   310   315   320
Asn Gly Tyr Asn Gly Asn Asn Gly Gly Asn Gly Asn Asn Arg Asn Asn
                325   330   335
Gly Asn Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Asp Asn Gly Asn
                340   345   350
Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Asp Asn
                355   360   365
Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Gly Asn Gly
    370   375   380
Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly
385   390   395   400
Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Gly Asn
                405   410   415
Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asp Tyr
                420   425   430
Gly Ser Asn Gly Asn Asn Gly Gly Asn Gly Asn Asn Gly Asn Asn Gly
                435   440   445
Asp Asn Gly Asn Gly Asp Asn Gly Tyr Asn Gly Asp Asn Gly Asn Ser
    450   455   460
Asp Gly Arg Leu Arg Arg Trp Asp Leu Glu Asn Val Arg Arg Met His
465   470   475   480
Thr Glu Arg Tyr His Phe Ser Arg Arg Cys Ile Val Lys Lys Ala Lys
                485   490   495
Arg Leu Ser Arg Ile Leu Glu Cys Ala Tyr Arg His Lys Lys Val Arg
                500   505   510
Glu Phe Lys Arg Asn Gly Glu His Lys Gly Leu Asp Val Glu Ile Thr
                515   520   525
Pro Glu Met Val Leu Pro Pro Ile Lys Tyr Arg Gln Tyr Tyr Thr Tyr
                530   535   540
Glu Gly Ser Leu Thr Thr Pro Pro Cys Asp Glu Thr Val Leu Trp Val
545   550   555   560
Val Glu Lys Cys His Val Gln Val Ser Arg Arg Val Leu Asp Ala Leu
                565   570   575
Arg Asn Val Glu Gly Tyr Glu Asp Gly Thr Thr Leu Ser Lys Tyr Gly
                580   585   590

4

Thr Arg Arg Pro Thr Gln Arg Asn Ile Lys Pro Leu Thr Val Tyr Lys
        595   600   605
Asn Phe Ile
    610

<210> 5
<211> 568
<212> PRT
<213> Pinctada maxima

<400> 5
Met Trp Arg Met Thr Thr Leu Leu His Leu Thr Ala Leu Leu Val Leu
  1   5   10   15
Ile Pro Leu Cys His Cys Ala Ser Met His Arg His Asp His Tyr Met
            20   25   30
Asp Met Asp Gln Thr Tyr Pro Asn Gly Leu Gly Tyr Cys Glu Pro Ser
        35   40   45
Gly Glu Ser Ser Cys Lys Ala Gly Phe Ser Tyr Asn Arg Asp Ile Cys
    50   55   60
Gln Gly Pro Tyr His Trp His Thr Ile Ser Ser Cys Tyr Lys Ala Cys
65   70   75   80
Gly His Lys Arg Arg Gln Ser Pro Ile Asn Ile Trp Ser His Lys Ala
                85   90   95
Val Phe Leu Pro Tyr Leu Pro Arg Leu Lys Phe Lys Pro His Met Lys
            100   105   110
Ser Leu Asp Thr Asp Val Thr Asn His Gln Asn Arg Ala Pro Glu Phe
        115   120   125
Glu Pro Glu Asp Gly Asp Lys Leu His Val Lys Leu Lys Asn Leu Val
    130   135   140
Asp Gly His Tyr Lys Phe His Asn Leu His Ile His Asn Gly Lys Ser
145   150   155   160
Arg Arg Lys Gly Ser Glu His Ser Val Asn Arg His Phe Thr Pro Met
                165   170   175
Glu Ala His Leu Val Phe His His Asp Asp Lys Lys Glu Ile Lys Pro
            180   185   190
Pro Arg Val Lys Leu Gly Gly Val Tyr Ala Gly Arg Asn Lys Phe Val
            195   200   205
Val Val Gly Val Phe Leu Glu Val Gly Asp Glu Gly Tyr Gly Asp Glu
    210   215   220
Pro Asp Asp Asp Glu Cys Lys Arg Ile Leu Lys Gly His Cys Glu Asn
225   230   235   240
Asn Gly Asp Asn Gly Asn Asn Cys Asp Asn Gly Asn Asn Gly Asn Asn
                245   250   255
Asp Asn Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Tyr
            260   265   270
Asn Gly Asn Asn Gly Asp Asn Gly Asn Asn Gly Asn Gly Asn Gly Asn
            275   280   285
Asn Gly Tyr Asn Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Asn Asn
        290   295   300
Gly Asn Gly Asn Asn Asp Asn Asn Gly Asn Asp Asn Asn Gly Asn Asn
305   310   315   320
Gly Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn
            325   330   335
Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Gly Asn Gly Asn Asn Gly
            340   345   350
Asn Asn Gly Asn Ser Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly
        355   360   365

5

```
Asn Asn Gly Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn
    370             375             380
Glu Asn Asn Gly Asn Gly Ser Asn Gly Asn Asn Gly Gly Asn Gly Asn
385             390             395             400
Asn Gly Asn Asn Gly Asp Asn Gly Asn Gly Asp Asn Gly Tyr Asn Gly
            405             410             415
Asp Asn Gly Asn Ser Asp Gly Arg Leu Arg Arg Trp Asp Leu Ala Asn
            420             425             430
Val Arg Arg Met His Ala Glu Arg Tyr His Phe Ser Gly Gly Cys Ile
        435             440             445
Val Lys Lys Ala Lys Arg Leu Ser Arg Ile Leu Glu Cys Ala Tyr Arg
        450             455             460
His Lys Lys Val Arg Glu Phe Lys Arg Asn Gly Glu Glu Lys Gly Leu
465             470             475             480
Asp Val Asp Ile Thr Pro Glu Met Val Leu Pro Pro Met Lys Tyr Arg
            485             490             495
His Tyr Tyr Thr Tyr Glu Gly Ser Leu Thr Thr Pro Pro Cys Asn Glu
            500             505             510
Thr Val Leu Trp Val Val Glu Lys Cys His Val Gln Val Ser Arg Arg
            515             520             525
Val Leu Asp Ala Leu Arg Asn Val Glu Gly Tyr Glu Asp Gly Thr Thr
            530             535             540
Leu Ser Lys Tyr Gly Thr Arg Arg Pro Thr Gln Arg Asn Lys His Pro
545             550             555             560
Leu Arg Val Tyr Lys Asn Ser Ile
                565

<210> 6
<211> 447
<212> PRT
<213> Pinctada fucata

<400> 6
Met Tyr Leu His Leu Thr Ala Leu Cys Val Val Ile Pro Leu Cys Tyr
  1             5             10             15
Gly Ala Ser Met Phe Lys His Asp His Tyr Met Asp Asn Gly Val Arg
            20             25             30
Tyr Pro Asn Gly Asp Gly Ile Cys Lys Gln Leu Asn Glu Thr Lys Cys
        35             40             45
Asp Ala Gly Phe Ser Tyr Asp Arg Ser Ile Cys Glu Gly Pro His Tyr
    50             55             60
Trp His Thr Ile Ser Lys Cys Phe Ile Ala Cys Gly Ile Gly Gln Arg
65             70             75             80
Gln Ser Pro Ile Asn Ile Val Ser Tyr Asp Ala Lys Phe Arg Gln Arg
            85             90             95
Leu Pro Lys Leu Lys Phe Lys Pro His Met Glu Lys Leu Lys Thr Glu
            100             105             110
Val Thr Asn His Gln Asn Arg Ala Pro Glu Phe Glu Pro Glu Asp Gly
            115             120             125
Glu Asn Leu Tyr Val Lys Leu Asn Asn Leu Val Asp Gly His Tyr Lys
            130             135             140
Phe His Asn Leu His Val His Asn Gly Arg Thr Arg Arg Lys Gly Ser
145             150             155             160
Glu His Ser Val Asn Gly Arg Phe Thr Pro Met Glu Ala His Leu Val
            165             170             175
Phe His His Asp Asp Gln Thr His Phe Glu Pro Thr Arg Thr Lys Leu
            180             185             190
```

6

```
Gly Gly Ala Phe Pro Gly His Asn Asp Phe Val Val Val Gly Val Phe
        195                 200                 205
Leu Glu Val Gly Asp Asp Gly Phe Gly Asp Glu Pro Asp Asp Glu Glu
    210                 215                 220
Cys Lys His Ile Leu Lys Gly His His Pro Asp Asn Asn Glu Asn Gly
225                 230                 235                 240
Asn Gly Asp Asn Gly Asn Asn Gly Tyr Asn Gly Asp Asn Gly Asn Asn
            245                 250                 255
Gly Asp Asn Gly Asn Asn Ser Tyr Asn Gly Asp Asn Gly Asn Asn Gly
            260                 265                 270
Val Asn Gly Asn Asn Gly Tyr Asn Gly Asp Asn Gly Asn Asn Gly Asp
            275                 280                 285
Asn Gly Asn Asn Gly Tyr Asn Gly Asp Asn Gly Asn Asn Gly Asp Asn
    290                 295                 300
Gly Asn Asn Gly Glu Asn Gly Asn Asn Gly Glu Asn Gly Asn Asn Gly
305                 310                 315                 320
Glu Asn Gly His Lys His Gly Cys Arg Val Lys Lys Ala Lys His Leu
            325                 330                 335
Ser Arg Ile Leu Glu Cys Ala Tyr Arg Asn Asp Lys Val Arg Glu Phe
            340                 345                 350
Lys Lys Val Gly Glu Glu Glu Gly Leu Asp Val His Leu Thr Pro Glu
            355                 360                 365
Met Ala Leu Pro Pro Leu Lys Tyr Arg His Tyr Tyr Thr Tyr Glu Gly
    370                 375                 380
Ser Leu Thr Thr Pro Pro Cys Thr Glu Ser Val Leu Trp Val Val Gln
385                 390                 395                 400
Lys Cys His Val Gln Val Ser Arg Arg Val Leu His Ala Leu Arg Asn
            405                 410                 415
Val Glu Gly Tyr Lys Asp Gly Thr Thr Leu Arg Lys Tyr Gly Thr Arg
            420                 425                 430
Arg Pro Thr Gln Lys Asn Lys Val Thr Val Tyr Lys Ser Phe Lys
    435                 440                 445
```

7